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July 10, 2006

Comments on the Transition to New or Revised
Particulate Matter National Ambient Air Quality
Standards, Advance Notice of Proposed Rulemaking
71 Fed. Reg. 6718 (Feb. 9, 2006)

VIA ELECTRONIC FILING

Air and Radiation Docket and Information Center
U.S. Environmental Protection Agency
1301 Constitution Avenue, NW
Room B102
Washington, DC 20004

Attention: Docket ID No. EPA-HQ-OAR-2005-0175

Dear Sir or Madam:

ExxonMobil appreciates the opportunity to submit comments on the U.S. Environmental Protection Agency's (EPA or the Agency) February 9, 2006 advance notice of proposed rulemaking to transition to a new or revised particulate matter (PM) National Ambient Air Quality Standards (NAAQS).

ExxonMobil operates seven refineries in the United States, six of which we own and one in which we hold a 50 percent ownership interest. These seven refineries have a combined crude oil processing capacity of 2.0 million barrels per day. ExxonMobil has over 40 marketing terminals that distribute gasoline, diesel fuel, and other petroleum products, and about 13,000 branded retail

outlets in 47 states and the District of Columbia. ExxonMobil is also a major chemical producer in the United States with 15 manufacturing facilities. A number of these facilities are located in areas designated as nonattainment for the current PM_{2.5} standard. We therefore have considerable interest in and will be impacted by the manner in which the Agency implements any revised standard for PM_{2.5}.

Although we continue to oppose EPA's proposal to revise the PM_{2.5} NAAQS, the ANPR raises a number of significant transition issues for any revised PM_{2.5} NAAQS which require careful consideration and further discussion. How EPA resolves these transition issues also could play a key role in future revisions to NAAQS, such as the 8-hour ozone standard. Provided below is a summary of the main points raised in our comments on the ANPR for PM_{2.5} implementation. The attachment provides our detailed comments which include both the technical and the legal justifications for these positions.

- The transition from the current PM_{2.5} NAAQS to any new or revised PM_{2.5} NAAQS should be accompanied by new designations.
 - The Clean Air Act requires new designations for revised or newly promulgated NAAQS and this is the path EPA has followed for other new or revised NAAQS.
 - A revision of the spatial averaging requirements for the annual PM_{2.5} standard is a change to the form of the standard and will impact the attainment designations and/or increase control requirements in some areas.
 - Changes to the form of the standard, reference methods, the numerical level, or the averaging time are all revisions that require EPA to promulgate new designations under the Clean Air Act.
- EPA's proposed timeline for the designations complies with the requirements of the Clean Air Act and also allows for states to take into consideration updated air quality information.
 - Designations at the end of 2009 better reflect the emissions reductions from national rules.
 - The full three years for designations ensures that changes to the monitoring network are finalized and refined and will prevent a delay in the collection of air quality data.
 - ExxonMobil supports the April 2010 effective date for the designations as it allows states to provide EPA with the most recent air quality data.

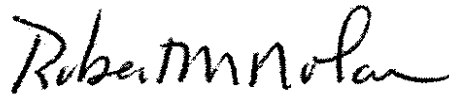
- EPA's proposed attainment deadlines meet the requirements of the Clean Air Act and provide states with additional time for ambient levels of PM_{2.5} to reflect the implementation of national rules such as Tier II, CAIR, and the heavy-duty engine and diesel fuel standards.
- For those areas with significant nonattainment problems, EPA should develop a policy mechanism that provides states with the full 10 years without requiring elaborate and burdensome justifications for securing the full time period for attainment. EPA's CAIR modeling could serve as a substitute for this demonstration.
- Reasonable and flexible transitional rules are essential for the efficient administration and coordinated implementation of the New Source Review Program for a new PM_{10-2.5} NAAQS and revised PM_{2.5} NAAQS. These transitional rules should address the following PSD provisions:
 - PM₁₀ should not be a regulated PSD pollutant since both constituents of PM₁₀ (e.g., PM_{2.5} and PM_{10-2.5}) are regulated upon adoption of the revised PM standards.
 - + EPA's "area-specific" proposal (under Option 2) for the immediate withdrawal of PSD regulation of PM₁₀ is an effective mechanism for avoiding redundant PM regulation, but further legal foundation needs to be developed in support of this approach.
 - + The continued regulation of PM₁₀ is not required under the statute and is inconsistent with the clear judicial precedent against duplicative PM regulations that was established by the U.S. Court of Appeals for the District of Columbia in *American Trucking Associations v. EPA*.¹
 - + The continued regulation of PM₁₀ is not necessary to ensure the protection of air quality generally or the attainment of the new PM standards specifically.
 - + The regulation of multiple and overlapping forms of PM under either of the proposed options will impose additional complexity and increased administrative burdens (on an already highly technical permitting process) without any meaningful benefits to air quality or the environment.

¹ 175 F.3d 1027 (D.C. Cir. 1999).

- EPA should develop a workable and flexible policy for transitioning from the current PSD increment system after the revocation of the PM₁₀ NAAQS.
 - + This policy should – first and foremost – allow for the use of the current PM₁₀ increments as a surrogate for PM_{10-2.5} and PM_{2.5} until EPA has had sufficient time to study and develop an effective PSD increment strategy that best achieves the statutory goals and purposes of the PSD program.
 - + Another important element of the transition policy should include the development of alternative mechanisms to the existing PSD increment system. Specifically, states should have the option to use market-based emission trading programs and other flexible SIP emissions control strategies, in lieu of requiring states to apply new PSD increments for PM_{10-2.5} and PM_{2.5}. One important benefit of this approach is to achieve PSD air quality goals in the least-cost manner by shifting the regulatory focus to the most highly cost-effective control strategies.
- BACT compliance, combined with federal control measures, is the most effective and efficient way to assure compliance with NAAQS for PM_{10-2.5} and PM_{2.5} until the necessary monitoring and modeling tools have been demonstrated and are commercially available.
- Accurate and reliable methods for measuring PM_{2.5} emissions must be developed before the CERR inventory can serve as the foundation for control strategy development in nonattainment areas.
 - Requiring states to measure condensable PM_{2.5} emissions or organic and elemental carbon before accurate test methods are developed can result in ineffective and, in some cases, counterproductive control strategies. Such emissions inventory obligations should not be imposed until states have a reliable means to measure PM_{2.5} at that level of detail.
 - ExxonMobil does not support expanding the CERR requirements to include daily emissions data at this time. It is not clear how useful this data would be given the current inadequate analytical tools to measure condensables and the organic carbon fractions.

ExxonMobil looks forward to working with the Agency in developing effective and efficient implementation strategies and rules for transitioning to any revised PM NAAQS. If you would like to discuss any of the comments in more detail, please contact me at (703) 846-2500 or e-mail me at robert.m.nolan@exxonmobil.com.

Respectfully submitted,

A handwritten signature in black ink that reads "Robert M. Nolan". The signature is written in a cursive, flowing style.

Robert M. Nolan
Downstream Advisor
Public Affairs Issue Management

cc: William Harnett, Director,
Air Quality Policy Division, Office of Air Quality Planning and Standards

**Comments of
ExxonMobil Corporation on EPA's Advance Notice of Proposed Rulemaking on the
Transition to New or Revised Particulate Matter National Ambient Air Quality Standards**

**71 Fed. Reg. 6718 (Feb. 9, 2006)
Submitted July 10, 2006**

ExxonMobil Corporation submits the following comments on the Environmental Protection Agency's (EPA) advance notice of proposed rulemaking on the transition to a new or revised particulate matter (PM) National Ambient Air Quality Standards (NAAQS).¹

While ExxonMobil submits these comments in response to EPA's request for feedback on issues related to the transition to a new NAAQS for PM, these comments should not be viewed as support for EPA's current proposal to revise the 24-hour standard for PM_{2.5}. Our April 17, 2006 comments on EPA's Proposed National Ambient Air Quality Standards for Particulate Matter² explain in detail why EPA's proposed decision on the daily standard is not supported by the underlying data.³ The uncertainty over the health effects associated with PM_{2.5} exposure has increased since the last science review. In addition, the magnitude of the risk estimates associated with fine particle exposure has decreased since the last science review. EPA's authority under section 109(b) of the Clean Air Act does not support a lowering of the annual or daily standards under these circumstances. Consequently, EPA's proposed decision to lower the daily standard is not "reasonably supported" by the administrative record. The comments submitted below should be considered by EPA in this context.

I. The Transition From the 1997 PM_{2.5} NAAQS to Any New 2006 PM_{2.5} NAAQS Must Be Accompanied by New Designations.

The ANPR lays out two possible options for the transition from the 1997 PM_{2.5} NAAQS to any new revised standard for PM_{2.5}. As described by EPA, the first option entails the revocation of the 1997 24-hour PM_{2.5} standard one year after designations are finalized for a new 24-hour standard. For the 1997 annual PM_{2.5} standard, the standard would be retained except

¹ Transition to New or Revised Particulate Matter (PM); National Ambient Air Quality Standards (NAAQS), Advance Notice of Proposed Rulemaking, 71 Fed. Reg. 6718 (Feb. 9, 2006).

² 71 Fed. Reg. 2620 (Jan. 17, 2006).

³ See ExxonMobil Comments on EPA's Proposed "National Ambient Air Quality Standards for Particulate Matter," 71 Fed. Reg. 2620 (Jan. 17, 2006), Docket No. EPA-HQ-OAR-2001-0017-1823.

revisions would be made to the application of spatial averaging.⁴ EPA explains that under the first option, areas that are in nonattainment of the 1997 annual PM_{2.5} standard would continue to develop and implement the state implementation plans (SIPs) based on the implementation rule for the 1997 PM_{2.5} NAAQS proposed in November 2005 and new designations would not be established.⁵

The second option involves the revocation of the 1997 24-hour and the annual PM_{2.5} NAAQS one year after the designations for any new 2006 PM_{2.5} standard. This option would include the development by EPA of anti-backsliding rules for the transition to a new standard similar to those developed for the transition from the 1-hour to the 8-hour NAAQS. For this option, EPA would develop rules on which planning and control requirements would remain in place after the prior standard is revoked, including the New Source Review Program and conformity requirements.⁶

A. The Transition to Any New or Revised NAAQS for PM_{2.5} Must Be Accompanied by New Designations.

In the event that EPA resolves the significant uncertainties and legal issues raised in ExxonMobil's comments on EPA's proposal to revise the PM_{2.5} standard⁷ and proceeds with a revision of the PM NAAQS, the second option is the only approach that meets the requirements of the Clean Air Act (CAA or Act) and is in keeping with how prior revisions and new NAAQS have been handled by the Agency. Section 107(d) of the Act requires that EPA, in consultation and coordination with the states, issue nonattainment designations "upon promulgation or revision of a national ambient air quality standard."⁸ EPA's proposal to revise the PM NAAQS includes a change to the numerical level for the daily PM_{2.5} standard and a possible revision of the requirements for spatial averaging for the annual standard. If either of these changes are adopted, they would constitute "revisions" as that term is used in section 107(d) and would necessitate that EPA promulgate new designations.

⁴ 71 Fed. Reg. at 6722 (Feb. 9, 2006).

⁵ See Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards, Proposed Rulemaking, 70 Fed. Reg. 65,984 (Nov. 1, 2005).

⁶ *Id.* at 6722.

⁷ See ExxonMobil Comments on EPA's Proposed "National Ambient Air Quality Standards for Particulate Matter," 71 Fed. Reg. 2620 (Jan. 17, 2006), Docket No. EPA-HQ-OAR-2001-0017-1823.

⁸ 42 U.S.C. § 7407(d)(1)(B)(i).

As a general rule, as EPA moves forward with revisions to current NAAQS or promulgates new NAAQS, it is essential that the Agency remain consistent with how revisions and new standards have been handled in the past. The second option, which includes new designations and revocation of the prior standard one year after final designations are promulgated, is preferable because it is consistent with the approach used by EPA with the ozone and the current PM_{2.5} NAAQS. When transitioning to the 8-hour ozone standard, EPA promulgated new designations and revoked the 1-hour ozone standard one year after the effective date of the designations.⁹ For the current PM_{2.5} NAAQS, which is a different pollutant than PM₁₀, EPA promulgated new designations that took effect in April 2005.¹⁰ In both cases, EPA used approaches for implementation that were consistent with the requirements in section 107(d). EPA should not deviate from this precedent for any revision to the PM NAAQS. In addition, for future revisions to other NAAQS, it is critical for planning purposes and regulatory certainty that EPA remains consistent with how revisions have been handled in past revisions to the NAAQS.

B. The First Option Ignores the Requirements of Section 107(d) and Is Based on the Erroneous Presumption that Changes to the Spatial Averaging Requirements for the Annual PM_{2.5} Standard Are Minor.

The first option presented by EPA in the ANPR not only ignores the requirements in section 107(d), but also makes the flawed assumption that a revision of the spatial averaging requirements for the annual standard would be a minor change that does not warrant designations under section 107(d).¹¹ The current annual PM_{2.5} standard gives areas the option to average across multiple monitors or use a single, appropriately sited community-oriented monitor for purposes of determining attainment.¹² According to EPA's proposal to revise the PM_{2.5}

⁹ Final Rule to Implement the 8-Hour Ozone National Ambient Air Quality Standard—Phase 1, Final Rule, 69 Fed. Reg. 23,951, 23,969 (Apr. 30, 2004). The reason for the one-year delay for revocation was due to the conformity obligation for ozone nonattainment areas. EPA was concerned that there would be a gap in the application of conformity requirements if the 1-hour standard was revoked at the time of designations for the 8-hour ozone NAAQS. *Id.* at 23,970. EPA explained that requiring nonattainment areas to meet conformity requirements for both the 1-hour and the 8-hour ozone NAAQS was not necessary and so a delay of one year for the effective date of the revised standard eliminated overlapping conformity requirements. *Id.* at 23,969.

¹⁰ Air Quality Designations and Classifications for the Fine Particles (PM_{2.5}) National Ambient Air Quality Standards, Final Rule, 70 Fed. Reg. 944 (Jan. 5, 2005).

¹¹ 71 Fed. Reg. at 6722.

¹² See 40 C.F.R. Part 58.

NAAQS, EPA is considering whether to change the criteria for using spatial averaging so that the correlation coefficient between monitor pairs is at least 0.9, determined on a seasonal basis, with differences in values not to exceed 10 percent.¹³ EPA also asked for comment on the alternative of revising the form of the annual PM_{2.5} standard to one based on the highest community-oriented monitor, thereby eliminating the ability of areas to use spatial averaging entirely.¹⁴ The net effect of these proposed amendments to the annual PM_{2.5} standard is a change in the form of the standard, which could potentially increase the level of local emission control areas will need to demonstrate attainment.

It is likely that areas will be adversely impacted by the proposed changes to the criteria for spatial averaging for the annual PM_{2.5} standard if they are adopted as proposed. EPA explains in the ANPR that 39 areas have been designated as being in nonattainment of the 1997 PM_{2.5} standard. According to EPA's modeling, by 2010, 18 of the 39 areas that do not meet the 1997 PM_{2.5} NAAQS should come into attainment with those standards based on existing regulatory programs, *e.g.*, the clean diesel rules, CAIR, and other federal programs. Four other PM_{2.5} nonattainment areas are projected to attain the standards by 2015 based on the implementation of these programs. EPA predicts that areas in the eastern U.S. will have lower PM_{2.5} concentrations in 2015 relative to present day conditions.¹⁵ Although this trend in emissions levels is promising, these numbers will change dramatically if and when EPA revises the PM_{2.5} NAAQS. Areas that are in attainment of the PM_{2.5} NAAQS at this time or that are projected to attain the standard soon may not be if a revised PM_{2.5} NAAQS is adopted in the future.

For example, the attainment status of these areas could move from attainment to nonattainment due to the adoption of more stringent criteria or the elimination, altogether, of the option to use spatial averaging. In the event this happens, these areas would have to have new

¹³ National Ambient Air Quality Standards for Particulate Matter; Proposed Rule, 71 Fed. Reg. 2620, 2647 (Jan. 17, 2006). The current limits on using spatial averaging to meet the annual standard for PM_{2.5} include the requirement that the correlation coefficient between monitor pairs that are to be averaged is at least 0.6 and that differences in the mean air quality values between monitors to be averaged do not exceed 20 percent. *Id.* at 2646 n.36.

¹⁴ *Id.* at 2647-48.

¹⁵ 71 Fed. Reg. at 6722.

designations and would have to submit nonattainment plans to ensure that the area is brought back into attainment with the annual PM_{2.5} standard.

As this example demonstrates, although the proposed changes to the spatial averaging criteria do not change the numerical level of the standard, they change the form of the standard. These types of revisions to a NAAQS require that EPA promulgate new designations pursuant to section 107(d). In addition to a change in the form of the standard, there are other changes to the PM NAAQS that could alter the standard by increasing the difficulty of an area's ability to attain and maintain the NAAQS. These include, among others, the requirement to use different reference methods or the use of a different averaging time. Any of these types of changes would have an impact on the ability of an area to attain or maintain the standard and are consequently, "revisions" as that term is used in section 107(d) of the statute and EPA would have an obligation to issue new designations.

II. The Proposed Timeline for the Implementation of Any New 2006 PM_{2.5} NAAQS Complies With the Statutory Requirements and Provides States and EPA with the Necessary Time for Designations, SIP Development and Attainment.

The ANPR provides a proposed timeline for implementing a new revised PM_{2.5} NAAQS:

- Monitoring data used for State recommendations—2005-2007
- State recommendations to EPA—December 2007
- Final designations signature—December 2009
- Effective date of designations—April 2010
- SIPs due—April 2013
- Attainment date—Up to April 2015 (based on 2012-2014 data)
- Attainment date with a 5-year extension—Up to April 2020 (based on 2017- 2019 data)

As EPA explains in the ANPR, all of the dates noted above presume that any new PM_{2.5} NAAQS would become effective in December 2006.¹⁶ With this as a starting point, EPA predicts that final designations would be signed by December 2009 and take effect by April 2010. SIPs would then be due by 2013, with attainment deadlines up to April 2015 and up to April 2020, depending on the severity of nonattainment.

¹⁶ 71 Fed. Reg. at 6723 (Table 1).

ExxonMobil supports the timeline to the extent that it will provide EPA and the states with sufficient time to collect data that accurately reflect the emissions reductions achieved through the implementation of national rules.

A. Any Implementation Timeline Should Allow States and EPA to Use the Most Recent Monitoring Data to Reflect Reductions Achieved from National Rules.

ExxonMobil supports a timeline that permits EPA and states to rely on the most recent air quality monitoring data when making designations. Such an approach complies with the requirements of the CAA and also is a sound policy for the Agency to follow.

EPA explains in the ANPR that three years may be necessary for a variety of reasons, including the need to consider more recent data to determine the appropriate designation boundaries.¹⁷ In all likelihood, EPA and the states will need the full three years to sort through the boundaries for nonattainment areas. Congress contemplated in section 107(d)(1)(B)(i) of the Act that the air quality data needed for the designations may not be immediately available and built in an additional year for EPA to obtain the necessary data. Specifically, section 107(d)(1)(B)(i) states that the two-year period provided for promulgating designations “may be extended for up to one year in the event the Administrator has insufficient information to promulgate the designations.”¹⁸ Section 107(d)(1)(B)(ii) also refers to the potential situation where EPA would have to amend the state recommendations, “including the boundaries of such areas or portions thereof.”¹⁹ Given that a number of national programs are in various phases of implementation, it is very likely that EPA will have to review additional air quality monitoring data collected by the states after the initial recommendations are made. EPA’s proposed schedule for designations reflects that the full three-year period for designations will be needed and such a time period is permitted by the statute.

EPA’s experience with the designation processes for both the 1997 PM_{2.5} and ozone NAAQS has demonstrated that the full period for designations provided for in section 107(d) is

¹⁷ *Id.*

¹⁸ 42 U.S.C. § 7407(d)(1)(B)(i).

¹⁹ 42 U.S.C. § 7407(d)(1)(B)(ii).

likely to be necessary. In the Transportation Equity Act for the 21st Century (TEA-21), Congress guaranteed that EPA had three years for the designations for the 8-hour ozone and the PM_{2.5} NAAQS.²⁰ For the 8-hour ozone standard, Congress gave EPA three years from the date the 8-hour ozone NAAQS was promulgated to set the designations. Section 6103(a) of TEA-21 also required that state recommendations for the 8-hour ozone NAAQS be completed within 2 years of promulgation, with EPA's final designations to follow one year following that deadline.²¹ Sections 6102(c)(1) and (d) of TEA-21, which set the deadlines for the 1997 PM_{2.5} designations, took into account the need for three full years of monitoring data for the new NAAQS, and provided EPA and the states with two additional years after the data gathering process just for designations. EPA's plan to use the full three years for designations is consistent with the timing of designations for other NAAQS and provides the Agency with the additional time needed to consider updated air quality data, consult with the states on boundaries, and revise designations.

The proposed timeline in the ANPR also makes sense as a matter of policy because it gives states the additional time needed to collect monitoring data that will more accurately reflect the emissions reductions achieved with the implementation of several national regulations that will help areas meet the 1997 PM_{2.5} standard, *e.g.*, the Tier II standards, the heavy-duty diesel engine and fuel standards, the NO_x SIP call, early CAIR implementation, and the ongoing implementation of the Title IV acid rain program. Air quality monitoring data prior to 2007 will just begin to reflect the implementation of some of these national rules. A schedule that has final designations occurring in December 2009 gives states the opportunity to consider more recent air quality monitoring data and recommend any necessary changes to EPA.²² This will allow for more accurate designations as well as reduce the administrative burden associated with revising a number of area designations early on in the implementation process.

²⁰ See Transportation Equity Act for the 21st Century, Pub. L. No. 105-178, 112 Stat. 1097 (1998).

²¹ The three-year timeframe was ultimately not sufficient for the ozone designations. EPA explained in the rule promulgating the final 8-hour ozone designations that the designations were not issued in June 2000 "[b]ecause of uncertainties due to the ongoing litigation on the ozone standard." Air Quality Designations and Classifications for the 8-Hour Ozone National Ambient Air Quality Standards; Early Action Compact Areas With Deferred Effective Dates, 69 Fed. Reg. 23,858, 23,861 (Apr. 30, 2004). The timing of the designations was also delayed because EPA was restricted by its appropriated funds in 2000 from spending any money on designating areas until June 2001 or until the Supreme Court issued a ruling on the standard, whichever came first. *Id.* at 23,860. The Supreme Court issued its decision in *Whitman v. American Trucking Ass'n* on February 27, 2001.

²² 71 Fed. Reg. at 6723.

In addition, from a timing perspective, it is prudent for the designations to be finalized at the end of 2009 due to the recently proposed amendments to the NAAQS monitoring requirements.²³ In January 2006, EPA proposed multiple changes to the existing NAAQS monitoring requirements and network, including the network for PM_{2.5}, which will affect the quality of the monitoring data. These revisions will place demands on state and federal resources and may likely delay the collection of PM_{2.5} air quality monitoring data. Requiring designations by the end of 2009 would give EPA and the states sufficient time to implement the changes and undertake quality control checks to ensure accurate air quality monitoring data is gathered.

B. ExxonMobil Supports the April 2010 Effective Date for Designations as it Is Consistent with Other Revisions to NAAQS and Provides EPA with Additional Time to Consider Air Quality Data Through 2009.

The proposed April 2010 effective date for the designations provides the Agency with additional time to revise designations, if necessary, and is consistent with the time frame used by the Agency in making the designations for the current PM_{2.5} NAAQS. When promulgating the final designations for the current PM_{2.5} rule, EPA signed the rule on December 17, 2004 and it was published in the Federal Register on January 5, 2005, with an effective date of April 5, 2005.²⁴ An effective date four months from signature provided EPA with additional time for any subsequent revisions to the designations in order to reflect the most current air quality data. This schedule acknowledged that the designations for the 1997 PM_{2.5} areas established at the end of 2004 did not account for the monitoring data for that calendar year.²⁵

The April 2010 effective date for designations for a new PM_{2.5} NAAQS also is in keeping with EPA's goal to have the designations reflect the most current data. EPA explains in the ANPR that the April 2010 effective date allows states to consider monitoring data from 2007 through 2009. The later the range of data, the more the designations will reflect the reductions

²³ Revisions to Ambient Air Monitoring Regulations, Proposed Rule; Amendments, 71 Fed. Reg. 2710 (Jan. 17, 2006).

²⁴ Air Quality Designations and Classifications for the Fine Particles (PM_{2.5}) National Ambient Air Quality Standards; Final Rule, 70 Fed. Reg. 944 (Jan. 5, 1997).

²⁵ The 2004 air quality data ultimately affected the status of several areas—the designations for eight areas originally designated as nonattainment and four areas originally designated as unclassifiable were changed to attainment status based on the 2004 data. Air Quality Designations for the Fine Particles (PM_{2.5}) National Ambient Air Quality Standards—Supplemental Amendments, Final Rule, Supplemental Amendments, 70 Fed. Reg. 19,844 (Apr. 14, 2005).

achieved from the ongoing implementation of a number of national rules (e.g., CAIR, Tier II, the heavy-duty diesel engine and fuel standards, the Title IV acid rain program, the NOx SIP call). Reductions from these national rules are expected to reduce the number of areas designated as nonattainment.

C. The Proposed 2013 Deadline for SIP Submittal Complies with the Requirements of Section 172(b).

The proposed April 2013 deadline for SIP submittal for any revised PM_{2.5} standard complies with the requirements of the statute. Section 172(b) of the CAA contains specific direction as to when nonattainment SIPs are due. Specifically, this section states that a nonattainment SIP should be submitted “no later than 3 years from the date of the nonattainment designation.”²⁶ The proposed 2013 date is consistent with the three year deadline in section 172(b).

D. The Attainment Deadlines Proposed in the ANPR Are Appropriate but EPA Also Will Need to Develop a Policy Mechanism to Ensure that States Needing More Time for Attainment Can Obtain the Necessary Time Up Front.

The proposed schedule in the ANPR includes attainment deadlines of “up to April 2015” and “up to April 2020” for areas that are not projected to meet a revised PM_{2.5} NAAQS. These deadlines conform to the requirements in the CAA. Section 172(a)(2)(A) gives EPA discretion when setting attainment deadlines for nonattainment areas. Section 172(a)(2)(A) requires that

[t]he attainment date for an area designated nonattainment with respect to a national primary ambient air quality standard shall be the date by which attainment can be achieved as expeditiously as practicable, but no later than 5 years from the date such area was designated nonattainment under section 7407(d) of this title, except that the Administrator may extend the attainment date to the extent the Administrator determines appropriate, for a period no greater than 10 years from the date of designation as nonattainment, considering the severity of nonattainment and the availability and feasibility of pollution control measures.²⁷

²⁶ 42 U.S.C. § 7502(b).

²⁷ 42 U.S.C. § 7502(a)(2)(A).

The attainment deadlines of 2015 and 2020 proposed in the ANPR comport with the requirements in the statute. Furthermore, providing some areas with the full 10 years for attainment up front is a sound policy because it allows EPA to tailor the attainment deadlines to the air quality problems of various nonattainment areas and to consider national programs that will help these areas attain a revised PM_{2.5} NAAQS.²⁸

A similar attainment deadline schedule of 5 and 10 years was included in EPA's proposed rule implementing the current PM_{2.5} NAAQS. For the current PM_{2.5} NAAQS, EPA proposed an initial attainment date of 2010 for nonattainment areas, with up to 2015 as the deadline for nonattainment areas needing a longer period of time to attain the standard.²⁹ The proposed attainment deadlines in the ANPR of 2015 and 2020 are consistent with the proposed attainment deadlines for the current PM_{2.5} NAAQS. In the event that EPA proceeds with finalizing a revision of the PM NAAQS, harmonizing the two schedules makes sense in that it provides continuity and preserves momentum in the transition from the current 1997 PM_{2.5} standard to any new revised standard. Nonattainment areas also will benefit from this schedule by having additional time to see emissions reductions from the implementation of national rules, *e.g.*, CAIR, Tier II, heavy-duty diesel fuel and engine standards, Title IV acid rain controls, the Regional Haze Program, and the NO_x SIP call, as well as facility-specific reductions due to New Source Review consent decrees.

If EPA proceeds with revising the PM_{2.5} NAAQS, the requirements for areas to obtain the full 10 years to attain the standard must be streamlined to reduce the resource burden associated with the elaborate justification for additional time. EPA must establish guidance covering those circumstances when the full 10-year attainment period is provided to nonattainment areas up front without requiring significant additional information or data in the SIP submittal. As a substitute, EPA should consider utilizing the CAIR modeling or other relevant data which could substantiate the need for a 2020 attainment deadline for those areas with significant nonattainment problems. ExxonMobil suggested a similar approach in the comments submitted

²⁸ Such national programs include CAIR, Tier II standards, the Title IV acid rain program, the NO_x SIP call, the heavy-duty diesel engine and fuel standards.

²⁹ Proposed Rule to Implement the Fine Particle National Ambient Air Quality Standards; Proposed Rule, 70 Fed. Reg. 65,984, 66,002 (Nov. 1, 2005).

on the implementation rule for the current PM_{2.5} NAAQS.³⁰ Developing these policies will serve to minimize the substantial burden that will be placed on states as they develop SIPs to reduce ambient PM_{2.5} to any revised level.

EPA has projected, based on the implementation of national and existing local measures that 21 of the 39 designated nonattainment areas will continue to be in nonattainment with the current PM_{2.5} standard by 2010. Any downward revision or tightening of the PM_{2.5} standard will result in an even greater number of nonattainment areas. For those areas that will have considerable difficulty attaining the current PM_{2.5} NAAQS by 2010, attainment of a revised standard by 2015 may not be practicable as well. It is highly unlikely that additional local controls will be in place by January 2014 given the SIP submittal date of April 2013 for any revised PM_{2.5} standard, the time that will be needed to conduct rulemakings at the state and federal levels, and the lead time for installation of controls or implementation of programs that would reduce emissions. State rulemakings will not likely begin until mid-2012 and are unlikely to be able to require new local controls until some time after January 2014. Thus, it is likely that only existing local controls and national/regional measures, which have already been included in EPA's October 2005 multi-pollutant modeling analysis, will be available to reduce emissions between now and 2015. Thus, the same compliance challenges faced by areas in nonattainment of the current PM_{2.5} NAAQS will be experienced again for those areas needing to attain any revised standard.

To address this problem, ExxonMobil recommends that the Agency use EPA's October 2005 multi-pollutant modeling analysis to establish in any proposed implementation rule for a revised PM_{2.5} NAAQS that it is impracticable for 21 areas to reach attainment by 2015 for a revised standard. ExxonMobil recommended in the comments filed on the proposed implementation rule that EPA use a similar approach for areas that will require the full 10 years to attain the current PM_{2.5} standard.³¹ Such a finding for both the current and any revised PM_{2.5} NAAQS is supported by the modeling results that show only four areas moving from nonattainment to attainment between 2010 and 2015. Combined with the difficulty of

³⁰ See ExxonMobil Comments on the Proposed Rule to Implement the PM_{2.5} National Ambient Air Quality Standard, 70 Fed. Reg. 65,984 (Nov. 1, 2005), Docket No. EPA-HQ-OAR-2003-0062-0111.

³¹ See *id.*

implementing local measures between now and 2010 and the large number of areas shown by EPA modeling to remain in nonattainment in 2015, it is clear that an impracticability showing has already been made by EPA. Such a policy would save states significant resources to not require what is essentially the equivalent of an attainment demonstration in 2015, with all of the inventory and modeling work that entails, simply to show that attainment within five years is impracticable.

Section 172(a)(2)(A) provides EPA with the discretion to extend the attainment date, as appropriate, up to 10 years from the date of promulgation. When determining the appropriate deadline, EPA is to consider the severity of nonattainment and the availability and feasibility of pollution control measures.³² From a timing standpoint, with SIP submittal projected for a revised PM_{2.5} NAAQS in 2013, it is likely that only existing local controls and federal measures are all that will be available to states with an attainment deadline of 2015. Furthermore, EPA has already shown that the benefits of federal programs like CAIR and mobile source reduction requirements are critical for areas to reach attainment, but will not be fully realized until well after 2010. Indeed, the first phase of CAIR does not start until 2009 and 2010 for NO_x and SO₂, respectively. Thus, given EPA's modeling results, the unlikelihood of additional local controls by 2015, and the fact that most of the CAIR and mobile source reductions needed to reach attainment will not occur until well after 2010, a finding of impracticability for these areas is supported both legally and from a policy perspective.

At a minimum, even if EPA does not make a finding of impracticability in an implementation rule for a revised PM_{2.5} NAAQS, the Agency should explicitly provide in any future implementation rule that it will allow states to rely on the October 2005 multi-pollutant modeling analysis to satisfy the impracticability showing without having to submit the equivalent of a separate attainment demonstration to secure the full 10 year attainment time period. As explained above, the likelihood of implementing additional local measures to achieve attainment before 2015 and, for some areas, the likelihood of achieving attainment before 2020 (see discussion below) is virtually nonexistent. No useful purpose is served by requiring these areas to conduct costly attainment demonstrations.

³² 42 U.S.C. § 7502(a)(2)(A).

EPA's multi-pollutant analysis shows that 17 areas will be in nonattainment in 2015 and 16 areas to remain in nonattainment in 2020 with the current (1997) PM standards. While EPA's analysis does not assume any new local control measures, many of these areas have already implemented stringent local stationary source controls and some have few, if any, additional local sources to regulate. Furthermore, a number of these areas have large mobile source precursor inventories, or have a significant transport component, making them largely dependent on federal measures to attain the NAAQS. These 16 areas represent a significant portion of the population of this country:

- Atlanta, GA
- Birmingham, AL
- Chicago-Gary-Lake County, IL-IN
- Cincinnati-Hamilton, OH-KY-IN
- Cleveland-Akron-Lorain, OH
- Detroit-Ann Arbor, MI
- Floyd County, GA
- Huntington-Ashland, WV-KY-OH
- Indianapolis, IN
- Knoxville, TN
- Libby, MT
- Los Angeles-South Coast Air Basin, CA
- Pittsburgh-Liberty-Clairton, PA
- San Joaquin Valley, CA
- St. Louis, MO-IL
- Steubenville-Weirton, OH-WV

There is a very high likelihood that some of these areas with high PM_{2.5} design values in EPA's 2020 modeling projections (*e.g.*, South Coast District, San Joaquin Valley, Birmingham, Chicago, Detroit) will not attain the NAAQS within the 10-year timeframe provided by section 172(a)(2)(A). Similar to what ExxonMobil has urged EPA to do for the current PM_{2.5} NAAQS, EPA must therefore develop a reasonable means to interpret the statute to allow such areas additional time, at SIP submittal, to achieve attainment with any revised PM NAAQS. EPA should specifically consider statutory interpretations that will allow the Agency to extend the attainment date and the planning horizon for these areas beyond the 10-year period provided in section 172(a). If EPA fails to acknowledge this problem, states will be forced to write SIPs that are unrealistic and unachievable or be faced with sanctions for failure to submit an approvable

SIP. EPA, in turn, could be forced to develop Federal Implementation Plans (FIPs) for these areas, and/or impose economically harmful statutory sanctions.

The complexity and challenges presented by attaining the PM_{2.5} standard are similar to the challenges that were faced in 1990 in attaining the 1-hour ozone standard. Instead of forcing ozone nonattainment areas to meet a 10-year deadline, Congress developed a classification scheme in the Clean Air Act Amendments of 1990 that allow areas up to 19 additional years to attain the standard. Congress clearly recognized that NAAQS deadlines must be attainable. Establishing NAAQS deadlines that are technically infeasible to achieve is not good policy and will result in enormous economic costs and job losses in affected areas if federal sanctions are imposed. EPA needs to recognize and address this problem before SIPs are due for *both* the current PM_{2.5} NAAQS and any revised NAAQS.

While we recognize that the statutory language imposes some constraints, it is critical that the Agency acknowledge that many areas will not attain the standard by 2015 or 2020 and undertake a broader review of its existing statutory authority to develop options to ensure those states will not face sanctions for failing to submit approvable SIPs for either the current PM_{2.5} NAAQS or any revised standard.

III. Reasonable and Flexible Transitional Rules Are Essential for the Efficient Administration and Coordinated Implementation of a New Source Review Program for a New PM_{10-2.5} NAAQS and Revised PM_{2.5} NAAQS.

ExxonMobil supports EPA's efforts in the ANPR to begin early in developing the necessary policy options to ensure the effective implementation the New Source Review (NSR) program³³ for any new PM standards. There are many major NSR implementation issues that EPA will need to address in order to transition efficiently from the current PM standards to a new PM_{10-2.5} NAAQS and a revised PM_{2.5} NAAQS. Clear guidance on these issues is critical to ensure the consistent and efficient administration of this complex permitting program. The NSR program is a multifaceted preconstruction review process that applies when a major stationary

³³ NSR refers to the Prevention of Significant Deterioration (PSD) program that applies in attainment areas and the nonattainment-NSR program that applies to those air pollutants for which an area is designated nonattainment.

source is constructed or undergoes a major modification. This process, among other things, requires:

- A top-down technology review for the installation of state-of-the-art pollution control technology that reflects “best available control technology” in attainment areas and “lowest achievable emissions rate” (LAER) for sources in nonattainment areas;
- Extensive air quality monitoring and modeling analyses to ensure that the source’s emissions will not cause or contribute to a violation of any NAAQS or maximum allowable pollutant increase (*e.g.*, PSD increments);
- Notification and consultation with the federal land manager (FLM) regarding the potential impacts of the source’s emissions on nearby Class I areas; and
- Offsetting emissions reductions for those criteria air pollutants designated nonattainment in the area where the major stationary source is located.

Due to the complexity of the underlying permit program, ExxonMobil urges EPA to streamline and coordinate the new PM_{10-2.5} permitting requirements with the PM_{2.5} permitting requirements in the most efficient manner possible. The adoption of such reasonable transitional rules is essential to ease the implementation of the NSR program for PM. Most importantly, these transitional rules are crucial to assure the efficient administration of the NSR program and avoid permitting disruptions during the SIP-development period.

One important guiding principle for implementation should be to minimize additional permitting burdens that could result from duplicative or overlapping NSR regulation of the PM sub-fractions (*e.g.*, PM_{10-2.5}, PM_{2.5}) – particularly when such regulation would provide little, if any, benefits to the environment. In the ANPR, EPA articulated a clear standard to measure the environmental significance of implementation policies for transitioning from the current PM₁₀ NAAQS to any new PM_{10-2.5} NAAQS. Specifically, EPA’s “principal objective for the transition is to ensure that air quality will not degrade in areas where the potential new PM_{10-2.5} NAAQS would apply, and that areas continue to make progress toward attainment of the PM standards.”³⁴ ExxonMobil believes this standard, if properly applied, should serve as a useful benchmark in developing federal policies that strike the proper balance between environmental protection and

³⁴ 71 Fed. Reg. at 6725.

effective regulation that minimizes permitting complexity, administrative burdens, and regulatory uncertainty.

Another important guiding principle relates to the limited purpose and function of the NSR program. Specifically, EPA's implementation policies for PM should be consistent with the overall goals of the NSR program. NSR is not an emissions reduction program that EPA or states should use for achieving the reductions necessary for attaining the NAAQS. Rather, the NSR program is focused on ensuring the protection of air quality and requiring the installation of state-of-the art pollution control technologies at new units or major modifications. Any transition rules to be developed by EPA must be tailored to the narrow goals and purposes of the NSR program and not be used to recast the NSR program as an emission reduction program used to achieve the NAAQS.

Based on these guiding principles and in light of the important considerations discussed below, ExxonMobil believes that an essential element of NSR implementation strategy is ***not to regulate PM₁₀ under the PSD program in any area of the country where the daily PM₁₀ standard is revoked***. One way to implement this transition policy is through the "area-specific" approach that EPA proposed in the ANPR for determining whether PM₁₀ is a regulated pollutant under the NSR program.³⁵ Under this approach, PM₁₀ would remain a regulated pollutant only in those areas where the 24-hour standard has not been revoked due to ongoing PM air quality concerns that relate to any new PM_{10-2.5} standard. However, in areas where the standard has been revoked, PM₁₀ would not be a regulated pollutant. Although clearly the best option from a policy perspective, EPA's area-specific approach raises several legal issues, including those relating to consistency with the current regulatory definition of "regulated NSR pollutant."³⁶ ExxonMobil seeks to address these concerns by presenting below an alternative legal rationale for achieving the same regulatory outcome and ensures that the area-specific approach for PSD regulation of PM₁₀ can be legally sustained.

³⁵ EPA refers to this as Option 2 in the ANPR in its discussion of the issue whether PM₁₀ is a NSR regulated pollutant. See 71 Fed. Reg. at 6727.

³⁶ 40 C.F.R. § 52.21(b)(50) (definition of "regulated NSR pollutant"); 40 C.F.R. § 51.166(b)(49) (definition of "regulated NSR pollutant").

In addition to the immediate withdrawal of PM₁₀ as a PSD-regulated pollutant, ExxonMobil urges the adoption of two other important PM transition strategies for the PSD program. The first is the *development of a workable and flexible PSD-increment strategy* that –

- Allows for the use of the current PM₁₀ increments as a surrogate for PM_{10-2.5} and PM_{2.5} until EPA has had sufficient time to study and develop an effective PSD increment strategy that best achieves the statutory goals and purposes of the PSD program; and
- Considers the adoption of alternative mechanisms to PSD increments through market-based trading or other flexible SIP emissions control strategies that shift the regulatory focus to the most highly cost-effect control strategies.

The second important strategy is the establishment of a transitional PSD policy that *allows the use of BACT as a surrogate for NAAQS compliance* until the necessary monitoring and modeling tools have been demonstrated and are commercially available. As explained in greater detail below, BACT compliance, when combined with federal measures for reducing emissions nationwide, is the most efficient and effective way to assure PSD compliance with NAAQS for PM_{10-2.5}.

A. An Essential Element of the NSR Implementation Strategy is that PM₁₀ Should Not Be a Regulated PSD Pollutant Upon Adoption of the Revised PM Standards.

The PSD permitting requirements begin to apply for any new or revised NAAQS pollutant upon the effective date of the NAAQS.³⁷ Consequently, the PSD requirements for a new PM_{10-2.5} NAAQS could become effective before the end of this year under EPA's current PM rulemaking schedule.³⁸ Once this occurs, sources subject to PSD review will have an obligation to meet the BACT and PSD air quality requirements for the PM_{10-2.5} constituents of particulate matter emitted from the source. Also, the PSD requirements for PM_{2.5} would

³⁷ See 42 U.S.C. §§ 7471, 7475(a) (PSD applicability). Similarly, the nonattainment-NSR requirements begin to apply upon the date an area is designated nonattainment. *Id.* § 7502(c)(5) (nonattainment-NSR applicability). The obligation to implement nonattainment-NSR permitting requirements for PM_{2.5} will be triggered upon the effective date of the PM_{2.5} nonattainment designation, which is projected to be 2010 for PM_{2.5} and 2013 for PM_{10-2.5}.

³⁸ EPA's current schedule calls for the issuance of a final rulemaking on the PM NAAQS by September 27, 2006. Based on this schedule, EPA estimates that any new or revised PM standards will be published in the *Federal Register* within 4 weeks later in October 2006 and will take legal effect 60 days thereafter in December 2006.

continue to apply to such sources,³⁹ although the PSD air quality requirements would need to reflect the increased stringency of any revised PM_{2.5} standard.

ExxonMobil believes that the best policy option is not to regulate PM₁₀ under the PSD program in all areas of the country where the daily PM₁₀ is not being retained. Given the immediate application of the PSD requirements for a new PM_{10-2.5} NAAQS, and given that both constituents of PM₁₀ (e.g., PM_{2.5} and PM_{10-2.5}) are regulated upon the adoption of the revised PM_{10-2.5} standard, ExxonMobil opposes any proposal to continue redundant PSD regulation of PM₁₀ as a separate air pollutant under the ANPR. One possible strategy for immediately withdrawing PSD regulation for PM₁₀ is through the “area-specific” approach that EPA proposed in Option 2 of the ANPR.⁴⁰ As discussed in Section III. A.1 below, ExxonMobil urges EPA to develop an adequate legal foundation for supporting the adoption the “area-specific” option.

Independent and separate legal grounds exist for immediately phasing out PSD regulation for PM₁₀ upon the revocation of the PM₁₀ standard. As discussed in Section III.A.2 below, the continued regulation of PM₁₀ is not required under the statute and is inconsistent with the clear judicial precedent against duplicative PM regulations that was established by the U.S. Court of Appeals for the District of Columbia in *American Trucking Associations v. EPA*.⁴¹ Finally, ExxonMobil concludes with a brief review of the policy justifications that support the immediate phase out of PSD regulation. One important policy consideration is that the continued regulation of PM₁₀ is not necessary to ensure the protection of air quality generally or the attainment of the new PM standards specifically. A second important consideration is that the regulation of multiple and overlapping forms of PM will impose additional complexity and increased administrative burdens (on an already highly technical permitting process) without any meaningful benefits to air quality or the environment. Among other things, the increased complexity and administrative burdens will result in a patchwork of duplicative PM requirements that may vary based on the location of the source and the attainment status of that area for a

³⁹ The existing PM_{2.5} PSD program became effective on September 16, 1997, the date that the 1997 PM_{2.5} standard took effect.

⁴⁰ See 71 Fed. Reg. at 6727.

⁴¹ 175 F.3d 1027 (D.C. Cir. 1999).

revoked PM₁₀ NAAQS. ExxonMobil will discuss each of these concerns in greater detail in Sections III.A.3 and 4 below.

1. EPA's "area-specific" approach (e.g., Option 1) would establish an effective mechanism for the immediate phase out of PSD regulation of PM₁₀ for areas where EPA has revoked the PM₁₀ standards.

In the ANPR, EPA has proposed an "area-specific" approach for phasing out NSR regulation of PM₁₀. Under this approach, NSR regulation would not apply in those attainment areas where EPA has revoked the 24-hour standard. This would include everywhere in the country except for 15 areas that have a minimum population of 100,000 people and that violate the 24-hour standard based on the most recent 3 years of data.⁴² In contrast, NSR regulation would continue to apply in those areas where the 24-hour standard has been retained to address remaining PM air quality concerns. In most cases, the areas are currently designated as PM₁₀ nonattainment and thus would be subject to the nonattainment-NSR provisions for PM₁₀. EPA, however, is also proposing to retain the PM₁₀ standard in a few PM₁₀ attainment areas that meet the above criteria based on the likelihood that these areas "could be in violation of the proposed PM_{10-2.5} standard."⁴³ In the case of these few areas, PSD regulation for PM₁₀ would also apply due to ongoing PM air quality concerns with respect to any new PM_{10-2.5} standard.

ExxonMobil generally supports EPA's "area-specific" approach for the immediate withdrawal of PSD regulation for PM₁₀ upon revocation of the PM₁₀ standard. We agree with the general principle imbedded in this option that *the NSR regulation should be immediately withdrawn as soon as a criteria pollutant has been revoked for a particular area*. In the case of PM₁₀ standard, PSD regulation of PM₁₀ should be withdrawn in all areas of the country except for the very few attainment areas meeting the specific criteria described above.

To ensure the implementation of this transition strategy, ExxonMobil urges EPA to develop a strong legal foundation for supporting the adoption the "area-specific" option. This

⁴² 71 Fed. Reg. at 2674. Of the 15 areas identified, most include areas that are currently designated nonattainment, or were previously designated nonattainment, for PM₁₀. However, a few of the 15 areas have never been designated nonattainment for PM₁₀. As an explanation for its "factual basis" in developing its list of 15 areas, EPA stated: "we are proposing to retain the current 24-hour PM₁₀ standard only in areas which could be in violation of the proposed PM_{10-2.5} standard." *Id.* at 2674.

⁴³ 71 Fed. Reg. at 2674.

foundation should include a statutory analysis confirming, among other things, that Congress never intended the continued NSR regulation of a criteria pollutant once the standard for that pollutant has been revoked for any particular area. In addition, EPA should make conforming changes to the current federal regulatory definition of “regulated NSR pollutant.”⁴⁴ As discussed below, the failure to do so could inadvertently preclude EPA from implementing this important policy principle for requiring the immediate phase out of NSR regulation.⁴⁵

2. The continued regulation of PM₁₀ as a separate pollutant under the PSD program is not required under the statute and is inconsistent with judicial precedent.

a. EPA has developed a questionable legal rationale for its two options to phase out PSD regulation of PM₁₀.

The current federal regulations codify EPA’s longstanding interpretation that the PSD program applies to those air pollutants regulated under the CAA. The PSD program thus applies not just to criteria pollutants for which NAAQS have been promulgated, but also to non-criteria pollutants subject to New Source Performance Standards (NSPS) under CAA section 111 or “any pollutant that is otherwise regulated under the Act.”⁴⁶ EPA’s interpretation for regulating such non-criteria pollutants is based, in part, on CAA section 165(a)(4), which requires compliance with the BACT requirement “for each pollutant subject to regulation under this Act.”⁴⁷

In the preamble to the ANPR, EPA interprets these provisions to require PSD regulation of PM₁₀ so long as the PM₁₀ NAAQS remains in effect as a criteria pollutant. Specifically, EPA proposes two options for determining when PM₁₀ would no longer be a regulated criteria pollutant for purposes of the PSD program. Under Option 1, PM₁₀ would continue to be a

⁴⁴ 40 C.F.R. § 52.21(b)(50) (definition of “regulated NSR pollutant”); 40 C.F.R. § 51.166(b)(49) (definition of “regulated NSR pollutant”).

⁴⁵ This would likely occur since – as noted below – the regulation generally provides that PM₁₀ is not a “regulated NSR pollutant” only when it is no longer regulated under the Act as both a criteria pollutant *and* non-criteria pollutant.

⁴⁶ 40 C.F.R. § 52.21(b)(50); 40 C.F.R. § 51.166(b)(49). This regulatory provision also contains an exclusion from PSD regulation for hazardous air pollutants regulated under section 112 of the CAA and confirms that PSD regulation applies to ozone depleting substances subject to any standard under Title VI of the Act.

⁴⁷ This requirement is reiterated in the statutory definition of BACT. Specifically, CAA section 169(3) defines BACT to mean “an emissions limitation based on the maximum degree of reduction of each pollutant subject to regulation under this Act” that is emitted from the major stationary source.

regulated PSD pollutant *in all areas* since the current daily PM₁₀ standard would remain in effect, and thus continue to be regulated under the Act, in at least some areas.⁴⁸ PM₁₀ would no longer be a regulated pollutant under this option only when the daily PM₁₀ NAAQS is revoked for each and every nonattainment area throughout the country. Such an approach could lead to the absurd result of requiring PSD regulation of PM₁₀ if just one area in the country is unable to attain the generally revoked daily PM₁₀ NAAQS. Under Option 2 (which is the area-specific approach discussed above), EPA would look to the attainment status of each area in determining whether PM₁₀ is regulated for PSD purposes. PSD regulation would thus apply in those areas where the 24-hour standard has not been revoked and not apply in those areas where it has been revoked.

It is interesting to note that both EPA's options are based on the interpretation that once the PM₁₀ NAAQS is revoked,⁴⁹ PM₁₀ is no longer regulated under the Act as both a criteria pollutant *and* non-criteria pollutant. Most importantly, EPA fails to explain why PM₁₀ will not remain a regulated *non-criteria* pollutant under the Act given that current SIPs for virtually all states contain permit limits and other regulatory requirements for limiting PM₁₀ emissions. Such SIP requirements for PM₁₀ exist as separate federally enforceable requirements that arguably are necessary – at least during the transition period – to guard against backsliding for those areas that are expected to meet the new PM_{10-2.5} standard and the revised PM_{2.5} standards, and to ensure reasonable further progress in those areas that are not expected to attain those new or revised PM standards.

For these reasons and as noted above, ExxonMobil believes that changes to this regulatory definition are necessary for the adoption of Option 2. These changes to the regulatory definition should be part of a broader effort to bolster the legal foundation for the overarching policy principle that the NSR regulation should be immediately withdrawn as soon as a criteria pollutant has been revoked for a particular area. ExxonMobil also believes that – in the case of

⁴⁸ EPA is only proposing to revoke the annual PM₁₀ standard everywhere upon promulgation of the new PM_{10-2.5} standard. In contrast, the current proposal would not revoke the current 24-hour PM₁₀ standard in those areas where there is at least one monitor that is located in an urbanized area with a minimum population of 100,000 people and that violates the 24-hour standard based on the most recent 3 years of data. See 71 Fed. Reg. at 2674.

⁴⁹ In Option 1, PM₁₀ is no longer regulated under the Act only when the daily PM₁₀ NAAQS is revoked for each and every nonattainment area throughout the country. In Option 2, withdrawal of PM₁₀ as a PSD-regulated pollutant would occur for each area at the time that the area attains the daily PM₁₀ NAAQS, or when the standard is revoked for that area.

PM₁₀ – alternate legal grounds exist for the immediate withdrawal of PSD regulation for all areas of the country, including the 15 areas where the PM₁₀ standard will be retained by EPA. As discussed below, the withdrawal of such regulation should take effect as soon as the new PM_{10-2.5} NAAQS supercedes the PM₁₀ NAAQS in late 2006.

b. EPA should consider an alternate legal rationale for the immediate withdrawal of PM₁₀ as a PSD-regulated pollutant upon promulgation of a new PM_{10-2.5} standard.

ExxonMobil believes that neither of the EPA options for the gradual phase out of PM₁₀ from the PSD program is required under the statute. As noted above, EPA's statutory basis for its proposed approach under either option includes two provisions of the Act regarding the PSD requirement for installing best available control technology. One provision is CAA section 165(a), which provides in pertinent part:

(a) No major emissions facility . . . may be constructed in any area to which this [PSD] part applies unless—

* * *

(4) the proposed facility is subject to the best available control technology for each pollutant subject to regulation under this Act emitted from, or which results from, such facility;

The other relevant provision is section 169(3) of the Act, which defines BACT to mean “an emissions limitation based on the maximum degree of reduction of each pollutant subject to regulation under this Act” that is emitted from the major stationary source. A third relevant provision is section 165(a)(3), which prohibits the emissions from a new or modified source from causing or contributing to a violation of any NAAQS or PSD increment.

Neither of the provisions relating to BACT dictates the details on how EPA or states (as the permitting authority) shall implement the BACT requirement for each pollutant regulated under the Act. The statute, for example, does not prohibit the use of a surrogate in establishing a BACT limit for PSD-regulated pollutant. Similarly, nothing in section 165(a)(3) or other CAA provision bars the use of surrogates in meeting the PSD air quality requirements under the

appropriate circumstances. Perhaps the best and most relevant example of EPA exercising its discretion to allow the use of surrogates for PSD regulation is EPA's interim implementation policy to use PM₁₀ as a surrogate for PM_{2.5} in meeting the BACT and other PSD requirements. Recognizing the many technical difficulties with implementing the PSD program for PM_{2.5}, the EPA policy specifically authorized permitting authorities to use of PM₁₀ for implementing each of the PM_{2.5} PSD requirements.⁵⁰

For reasons similar to those that EPA used to justify the use of PM₁₀ as a surrogate for PM_{2.5}, ExxonMobil believes that the statute provides EPA with broad discretion on how to regulate PM₁₀ under the PSD program. *ExxonMobil therefore urges EPA to exercise this discretion for the immediate withdrawal of PM₁₀ as a PSD-regulated pollutant upon promulgation of a new PM_{10-2.5} standard* – to the extent that PM₁₀ continues to be a regulated pollutant under the Act and thus falls within the scope of the PSD program. Nothing in the statute requires that a separate BACT limit be set for PM₁₀, if BACT limits also are being set for both constituents of PM₁₀ (e.g., PM_{2.5} and PM_{10-2.5}). Similarly, requiring air quality modeling to demonstrate compliance with a redundant and generally revoked PM₁₀ standard makes no practical sense for new or modified sources in PM₁₀ attainment areas. PSD applicants will be required to demonstrate the source's emissions will not cause or contribute a violation of both the new PM_{10-2.5} and the revised PM_{2.5} NAAQS. No incremental protection to human health or the environment will thus be gained from also requiring applicants to perform additional modeling for a revoked PM₁₀ that is redundant to protections afforded under the PM_{2.5} and PM_{10-2.5} standards.

In fact, EPA's proposal for a gradual phase out of PM₁₀ from the PSD program under either option would result in "double regulation" of particulate matter, which is clearly contrary to the D.C. Circuit Court's ruling in *American Trucking Associations v. EPA*.⁵¹ In this case, the Court vacated the 1997 PM₁₀ standard based on the fact that the adoption of the PM₁₀ NAAQS to

⁵⁰ See Memorandum from John S. Seitz, Director, Office of Air Quality Planning and Standards, to Regional Air Directors, Interim Implementation of New Source Review for PM_{2.5} (October 23, 1997). EPA extended this PM₁₀ surrogate policy to the implementation of the NSR program in nonattainment areas, once PM_{2.5} nonattainment designations became effective on April 5, 2005. See Memorandum from Stephen D. Page, Director, Office of Air Quality Planning and Standards, to Regional Air Directors, Interim Implementation of New Source Review for PM_{2.5} in Nonattainment Areas (April 5, 2005).

⁵¹ 175 F.3d 1027, 1054-55 (D.C. Cir. 1999).

protect public health risks associated with thoracic coarse particles resulted in double regulation of PM_{2.5}. Double regulation occurred since this size fraction for the PM_{2.5} standard is both a component of PM₁₀ and subject to regulation under its own PM_{2.5} standard. Specifically, the Court reasoned:

Accepting EPA's finding of "profound physiochemical differences" between coarse and fine PM, such that each requires **independent regulation**, we cannot discern exactly how a PM₁₀ standard, instead of PM_{10-2.5}, will work alongside a PM_{2.5} standard to regulate only the coarse fraction of PM₁₀. EPA has provided no explanation to aid us in understanding its decision. In fact, as the example above indicates, it is the very presence of a separate PM_{2.5} standard that makes retention of the PM₁₀ indicator **arbitrary and capricious**. Far from working in conjunction to regulate coarse particles, PM₁₀ and PM_{2.5} indicators, when used together, lead to "**double regulation**" of the PM_{2.5} component⁵²

EPA's proposal in the ANPR is likely to result in double PSD regulation that is much more extensive than the double regulation struck down by the Court in the review of the PM₁₀ standard. Notably, the continued PSD regulation of PM₁₀ will lead to double regulation of **both** the PM_{2.5} and the PM_{10-2.5} constituents of PM₁₀, as opposed to just double regulation of PM_{2.5} to which the Court in *American Trucking* objected. ExxonMobil believes that such duplication clearly will have the arbitrary and capricious effects that the D.C. Circuit disapproved of in the *American Trucking* decision and should be avoided to the maximum extent feasible.

Finally, ExxonMobil is concerned about the legal implications of the rationale that EPA used to justify its gradual phase out of PM₁₀ regulation under either option. In each case, EPA's rationale for ending PSD regulation of PM₁₀ was focused on whether PM₁₀ is regulated as a criteria pollutant, and ignored the issue of whether PM₁₀ continues to be regulated as a non-criteria pollutant. ExxonMobil believes that this rationale incorrectly suggests that PSD regulation of PM₁₀ as a separate pollutant may be required if it is determined that PM₁₀ is regulated as non-criteria pollutant under the Act. ExxonMobil urges EPA to correct this mistaken impression in any proposed implementation rule and establish clear legal grounds for a transition policy that authorizes the immediate withdrawal of PM₁₀ as PSD regulated pollutant. This important legal clarification will require revisions to the regulatory definition of "regulated NSR pollutant" and should entail EPA developing a strong legal foundation for an overarching

⁵² *American Trucking Associations v. EPA*, 175 F.3d at 1054 (emphasis added).

policy principle that the NSR regulation should be immediately withdrawn as soon as *any criteria pollutant* has been revoked for a particular area.

3. The immediate withdrawal of PM₁₀ as a PSD-regulated pollutant neither jeopardizes air quality nor does it impair the expeditious attainment of the PM_{10-2.5} NAAQS.

EPA articulates in the ANPR a clear standard to measure the effectiveness of implementation policies for transitioning from the current PM₁₀ NAAQS to any new PM_{10-2.5} NAAQS. Specifically, the ANPR contains the following statement: “Our principal objective for the transition is to ensure that air quality will not degrade in areas where the potential new PM_{10-2.5} NAAQS would apply, and that areas continue to make progress toward attainment of the PM standards.”⁵³ ExxonMobil believes that the adoption of a federal policy authorizing the immediate withdrawal of PM₁₀ as a PSD-regulated pollutant will not hinder or delay the achievement of these important environmental objectives.

First, PSD applicants will be required under current PSD rules to demonstrate that the source’s emissions will not cause or contribute to a violation of both the new PM_{10-2.5} and the revised PM_{2.5} NAAQS. No incremental protection to human health or the environment will thus be gained from also requiring applicants to perform additional modeling for a revoked PM₁₀ standard that is redundant to protections afforded under the PM_{2.5} and PM_{10-2.5} standards. Requiring air quality modeling for a redundant and generally revoked PM₁₀ standard thus makes no practical sense for new or modified sources in PM₁₀ attainment areas. Second, the PSD program will require the installation of the most advanced PM control technologies that meet BACT levels for both PM_{2.5} and PM_{10-2.5}. Since the combined BACT technologies for controlling the PM_{2.5} and the PM_{10-2.5} fractions of PM₁₀ at a particular emissions unit by definition also control PM₁₀, no incremental emissions reductions would result from imposing a duplicative BACT requirement for PM₁₀. By definition, the aggregate BACT control levels for the PM_{2.5} and PM_{10-2.5} fractions would be equivalent to the BACT control levels that might be set for PM₁₀.

⁵³ 71 Fed. Reg. at 6725.

Finally, ExxonMobil believes that EPA's transitional PSD policy on PM should be consistent with the overall goals of the NSR program. NSR is not an emissions reduction program that EPA or states should use for achieving the reductions necessary for attaining the NAAQS. Rather, the purpose of the NSR program is to provide specific air quality protections and ensure the installation of state-of-the art pollution control technologies, as described above. In contrast, the statute contemplates that states will take the lead in developing SIP control programs for achieving the emissions reductions that are necessary for attaining any new PM_{10-2.5} NAAQS or revised PM_{2.5} NAAQS. EPA is responsible for developing federal programs for achieving emissions reductions nationwide or across broad geographic regions. As described in a recent EPA report,⁵⁴ these state and federal control measures have made substantial progress in reducing ambient concentrations of PM₁₀ and PM_{2.5}. PM₁₀ ambient concentrations, for example, have decreased 31 percent nationally since 1988. Further improvements in air quality are expected over the next 10 to 15 years through the continued implementation of Title IV acid rain controls, Tier II standards, heavy-duty diesel engine standards, the NO_x SIP call, and CAIR.

When viewed within this context, it is hard to formulate a convincing policy justification for the continued regulation of PM₁₀ under the PSD program. ExxonMobil believes that the lack of an environmental need and the intended function of the NSR program further support a federal policy to withdraw PM₁₀ from the PSD program once the PM_{10-2.5} standard takes effect at the end of the year.

4. The continued regulation of PM₁₀ as a separate pollutant under the PSD program adds to the complexity and increases the administrative burdens associated with the existing PSD program.

ExxonMobil also is troubled by the added complexity and increased administrative burdens that would certainly result from the continued PSD regulation of PM₁₀. One such example is the overlapping regulation of PM fractions. If PM₁₀ continues to be regulated after the adoption of the new PM_{10-2.5} NAAQS, the following three overlapping size ranges of particulate matter would be regulated under the PSD program: PM₁₀, PM_{10-2.5}, and PM_{2.5}. PSD

⁵⁴ See U.S. Environmental Protection Agency, The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003 (2004). *See also* National Ambient Air Quality Standards for Particulate Matter; Proposed Rule 71 Fed. Reg. 2620, 2624-25 (January 17, 2006).

applicants would be required to complete BACT analyses and conduct the applicable air quality analyses for each of PM size ranges. This would impose additional complexity and increased administrative burdens (on an already highly technical permitting process) without any meaningful incremental benefits to air quality or the environment.

Another concern is the patchwork of differing PM requirements that would vary based on the location of the source and the attainment status of that area for a revoked PM₁₀ NAAQS. Option 1 clearly illustrates this patchwork of inconsistent regulation. EPA, for example, notes in the ANPR that all PSD regulations requirements would continue to apply under Option 1 only in those areas where the daily PM₁₀ still remains in effect. In contrast, only the BACT and a few other PSD requirements not involving air quality would apply to those areas where the daily PM₁₀ has been revoked. A similar inconsistency in PSD regulation would occur under Option 2. In this case, PSD regulation for PM₁₀ would depend on the attainment status of each area. PSD regulation for PM₁₀ would apply in those areas where the 24-hour standard has not been revoked and not apply in those areas where it has been revoked. ExxonMobil sees no reason to impose this additional complexity and administrative burden on the permitting process when there are no or marginal incremental benefits to the environment.

B. EPA Should Consider Developing Flexible Alternative Mechanisms for Implementing the PSD Goals and Purposes After Careful Study, as Authorized under CAA Section 166.

ExxonMobil supports EPA's efforts to develop a workable and flexible policy for transitioning from the current PSD increment system after the revocation of the PM₁₀ NAAQS.⁵⁵ As discussed below, this policy should – first and foremost – allow for the use of the current PM₁₀ increments as a surrogate for PM_{10-2.5} and PM_{2.5} until EPA has had sufficient time to study and develop an effective PSD increment strategy that best achieves the statutory goals and

⁵⁵ As noted previously, one important component of the PSD permit program is the requirement to prevent significant deterioration of air quality in the attainment area where a new (or modified) source is to be located. Under CAA section 165(a)(3), a permit applicant can satisfy this requirement by demonstrating that the emissions from the source will not cause, or contribute to, a maximum allowable pollutant increase over baseline concentration levels (*e.g.*, PSD increments). In the case of PM, the statute prescribed specific numerical levels for the PSD increments. *See* Section 163 of the CAA. The numerical levels were expressed in $\mu\text{g}/\text{m}^3$ of PM and were initially implemented by EPA using total suspended particulate (TSP) as the PM indicator. After switching from TSP to PM₁₀ as the PM indicator, EPA substituted PM₁₀ increments for the statutorily prescribed TSP increments. *See* 58 Fed. Reg. 31,622 (June 3, 1993).

purposes of the PSD program. Another important element of the transition policy should include the development of alternative mechanisms to the existing PSD increment system. Specifically, states should have the option to use market-based acid rain-type emission trading programs and other flexible SIP emissions control strategies, in lieu of requiring states to apply new PSD increments for PM_{10-2.5} and PM_{2.5}. From a legal perspective, such flexibility is authorized under section 166 of the Act given that PM_{10-2.5} and PM_{2.5} are pollutants distinct from PM₁₀. From a policy perspective, the potential benefits of states using alternative regulatory mechanisms are considerable. Most importantly, alternative mechanisms provide the opportunity to achieve PSD air quality goals in the least-cost manner by shifting the regulatory focus to the most highly cost-effective control strategies. ExxonMobil briefly discusses each of these points in the comments below.

1. EPA does not have a continuing statutory obligation to implement an equivalent form of the PM increment for PM_{10-2.5} and PM_{2.5}.

The ANPR outlines two options for implementing the PSD increment requirement for particulate matter upon the revocation of PM₁₀ NAAQS. Under Option 1, EPA would conclude that PM_{10-2.5} and PM_{2.5} are criteria pollutants that are separate and distinct from PM₁₀. As different criteria pollutants, EPA has no continuing obligation to set new PSD increments for PM_{10-2.5} and PM_{2.5} that are equivalent in stringency to the current PM₁₀ increments. Rather EPA would be authorized to establish new increments (with new baseline areas and dates, etc.) or develop equivalent measures for preventing significant deterioration pursuant to CAA section 166.⁵⁶ In contrast, Option 2 would impose a continuing obligation on EPA to adopt equivalent PSD increments for PM_{10-2.5} and PM_{2.5}. Specifically, EPA would be required to substitute the current PM₁₀ increments with two new increments for PM_{10-2.5} and PM_{2.5} that are equivalent to the current PM₁₀ increments. As noted in the ANPR, this second option would involve “retroactively estimating PM_{2.5} and PM_{10-2.5} emissions in 1978 (based on the original PSD requirements for PM)” and thus would be “extremely difficult” to implement.⁵⁷

⁵⁶ Among other things, CAA section 166(a) directs EPA to “conduct a study” and promulgate pollutant-specific “regulations to prevent significant deterioration,” while sections 166(c) and 166(d) of the Act provide additional detail on the contents of those regulations.

⁵⁷ 71 Fed. Reg. at 6727.

ExxonMobil believes that Option 1 is preferable for several reasons. First, the retroactive estimation of PM_{2.5} and PM_{10-2.5} emissions required under Option 2 poses many practical difficulties and uncertainties. The resolution of these matters would not only be extremely difficult, but could have arbitrary or even possibly counterproductive environmental results based on extrapolation from limited emissions and air quality data. Second, Option 1 is the approach that is most consistent with the statute. This is evidenced by the fact that section 166(f) speaks only in terms of authorizing EPA to substitute PM₁₀ increments for the specific increments that Congress established for “particulate matter” in section 163 of the Act. Enacted during the passage of the 1990 CAA amendments, section 166(f) was adopted in response to EPA’s decision in 1987 to switch the indicator from “particulate matter” to PM₁₀. The term “particulate matter” in section 163 was interpreted by EPA to refer to ambient concentrations of total suspended solids (TSP), which includes particles with an aerodynamic diameter up to [30] microns in size.⁵⁸ Similarly, the references to PM₁₀ in the statute are clear that it includes only particulate matter with an aerodynamic diameter less than or equal to 10 microns. Two notable examples are CAA section 166(f) for the setting of equivalent PM₁₀ increments,⁵⁹ and CAA section 302(t), which provides a definition of PM₁₀.⁶⁰

For these reasons, it is clear that PM_{2.5} and PM_{10-2.5} are different from the criteria pollutants referenced in section 163 and 166(f) and thus are not governed by the requirements of those provisions. As different criteria pollutants, neither the section 163 increment requirement for particulate matter (*e.g.*, TSP), nor the section 166(f) requirement for equivalency of the PM₁₀ increment is applicable. Accordingly, EPA does not have a continuing statutory obligation to implement an equivalent form of the PM increment for PM_{10-2.5} and PM_{2.5}.

⁵⁸ See 58 Fed. Reg. 31,622 (June 3, 1993). Although Section 163 did not expressly define PM increments in terms of a specific indicator, EPA concluded: “Congress’ knowledge that TSP was the indicator for the PM NAAQS and that the TSP standards were the starting point for the increment levels when the increments were established in 1977, meant that TSP was also the appropriate measure for the PM increments in section 163.” 58 Fed. Reg. at 31,624.

⁵⁹ CAA Section 166(f) describes “PM-10 Increments” as maximum allowable increases in particulate matter with an aerodynamic diameter smaller than or equal to 10 micrometers.”

⁶⁰ CAA Section 302(t) defines the term “PM-10” to mean “particulate matter with an aerodynamic diameter less than or equal to a nominal ten micrometers, as measured by such method as the Administrator may determine.”

2. EPA should allow for the use of the current PM₁₀ increments as a surrogate for PM_{10-2.5} and PM_{2.5} until EPA has had sufficient time to study and develop an effective increment strategy.

ExxonMobil supports the use of the current PM₁₀ increments as a surrogate for PM_{10-2.5} and PM_{2.5} until EPA has had sufficient time to study and develop an effective PSD increment strategy these two constituents of PM₁₀. As different criteria pollutants, PM_{10-2.5} and PM_{2.5} are governed by the provisions of CAA section 166(a), which directs EPA to conduct a study and promulgate regulations to prevent significant deterioration of air quality. The air pollutants subject to the review process established under section 166(a) include “hydrocarbons, carbon monoxide, photochemical oxidants, and nitrogen oxides,” as well as any other “pollutants for which national ambient air quality standards are promulgated after date of enactment” (e.g., PM_{2.5}).⁶¹ Although the statute provides EPA with authority to regulate each of the preceding criteria pollutants, PSD increments currently exist for only three criteria pollutants: SO₂, PM₁₀ and NO_x. Of these pollutants, EPA exercised its discretion to set PSD increments only for NO_x. The PSD increments for SO₂ were prescribed by statute, while EPA was expressly authorized to set equivalent PM₁₀ increments pursuant to CAA section 166(f).

ExxonMobil supports EPA taking the necessary time to evaluate whether further regulation is necessary and, if so, what measures may be most effective for preventing significant deterioration of air quality. As discussed in the next section of these comments, alternatives to the current PSD increment system may be considered for PM_{10-2.5} and PM_{2.5} to the extent that EPA demonstrates that PSD-increment regulation under CAA section 166 is necessary for these pollutants. Such a course of action is consistent with the approach that Congress established for transitioning from the PM (e.g., TSP) increments prescribed by section 163 to equivalent PM₁₀ increments established under CAA section 166(f). In that case, the statute expressly provided that PM (e.g., TSP) increments “shall remain in effect” until EPA “promulgates regulations” setting the new PM₁₀ increments.

⁶¹ Section 166(a) of the CAA.

3. States should have the option to use market-based programs and other flexible SIP emissions control strategies in fulfilling its PSD increment obligations for PM_{10-2.5} and PM_{2.5}.

As noted above, section 166(a) of the Act directs EPA to conduct a study and, if necessary, promulgate regulations to prevent significant deterioration of air quality due to PM_{10-2.5} or PM_{2.5} emissions. Those regulations generally shall require states to adopt increments and other appropriate measures that fulfill the goals and purposes of the PSD program. CAA Section 166(e), however, provides states with increased flexibility in meeting their PSD obligations with respect to “any air pollutant . . . other than sulfur oxides and particulate matter.” In the case of these air pollutants, states are authorized to develop alternate control strategies, in lieu of adopting PSD increments, if the following criterion is satisfied:

[T]he implementation plan adopted by the State . . . contains other provisions which when considered as a whole, the Administrator finds will carry out the purposes in section 160 [e.g., Part C—Prevention of Significant Deterioration of Air Quality] at least as effectively as an area classification plan [e.g., PSD increments] for such pollutant.”

As a threshold matter, ExxonMobil believes that the flexibility provided under section 166(e) applies to both PM_{10-2.5} and PM_{2.5}. This is clearly evidenced, as demonstrated above, by the fact that the statute clearly differentiates the term “particulate matter” from other forms PM (such as PM₁₀, PM_{10-2.5} and PM_{2.5}).

ExxonMobil also urges EPA to consider developing flexible frameworks to fulfill the PSD increment obligations under section 166, to the extent that EPA determines further regulation of either PM_{10-2.5} or PM_{2.5} may be necessary under this section. One attractive mechanism that should be given serious consideration is a market-based cap and trade mechanism like the successful Acid Rain program. ExxonMobil believes that acid rain-type cap-and-trade programs can be a very cost-effective way for achieving the goals of the PSD program to prevent significant deterioration of air quality. Emissions trading programs also should be easier to administer than the current PSD increment system. Most importantly, trading programs would eliminate the current source-specific requirement to show that the emissions from source will not cause or contribute to air pollution of the PM_{10-2.5} or PM_{2.5} increment. Instead, the

emissions reductions achieved and maintained through an acid rain-type cap and trade program would demonstrate emissions levels across broad geographic regions fulfill the applicable PSD requirements of sections 166(c) and 166(d).

ExxonMobil also urges EPA to provide states with the flexibility of using other statewide SIP control strategies, in lieu of the traditional PSD increment system. Such control strategies may be appropriate for limiting emissions growth from mobile or area sources, for which a cap-and-trade approach may not be feasible. Under this approach, the SIPs could include emissions targets, procedures for tracking emissions growth within the state, and regulatory mechanisms or strategies for limiting projected emissions increases that could exceed allowable PSD levels. The SIP would thus provide a flexible framework for managing the air quality resources across the state and limit excessive growth in emissions, consistent with the requirements to prevent significant deterioration of air quality.

In conclusion, ExxonMobil believes that the potential benefits of states using alternative regulatory mechanisms are considerable. Most importantly, alternative mechanisms provide the opportunity to achieve PSD air quality goals in the least-cost manner by shifting the regulatory focus to the most highly cost-effective control strategies.

C. BACT Compliance, Combined with Federal Control Measures, Is the Most Effective and Efficient Way to Assure Compliance with NAAQS for PM_{10-2.5} and PM_{2.5} Until the Necessary Monitoring and Modeling Tools Have Been Demonstrated and Are Commercially Available.

ExxonMobil has concerns about moving forward with implementing a PSD program for PM_{10-2.5} and PM_{2.5} *before* EPA has in place all of the necessary tools for implementing certain elements of the program. One particular concern is that EPA has not promulgated commercially viable, quality-assured test methods for measuring the condensable fraction of PM_{2.5}. Another major concern is that the necessary analytic tools for accurately modeling the air quality impacts have not been yet demonstrated for PM_{2.5}. In the ANPR, EPA concedes that “it will encounter similar difficulties with implementing a PSD program for PM_{10-2.5} upon the effective date of a

NAAQS for PM_{10-2.5}.⁶² The lack of the necessary tools for carrying out a PSD program for both criteria pollutants presents significant challenges to EPA and the states that must administer the PSD program and to facility owners that comply with specific PSD requirements. Requiring full implementation of these program elements could impair the efficient permitting of new and modified sources under the PSD program. In addition, attempts to implement these program elements without the necessary monitoring and analytic tools could have counterproductive and arbitrary results in many cases, instead of achieving the intended environmental objectives.

A case in point is the fact that a commercially practicable and acceptably accurate test method for measuring the condensable portion of PM_{2.5} emissions is neither demonstrated nor commercially available for stationary sources. Without such test methods, states can neither develop accurate baseline emissions inventories nor accurately assess the air quality impacts of potential emissions increases from new or modified sources seeking PSD review. Similarly, PSD applicability depends on whether a new source is considered “major” or whether a change at an existing source is a “major modification.” The major source and major modification determinations, in turn, depend on the size of any emissions increase from the new or modified source from the new or modified source. Because there is no commercially available and acceptably accurate test method for the condensable fraction of the PM_{2.5} emissions, it is not feasible to determine accurately NSR applicability. Basing applicability determinations on condensable fraction of PM_{2.5} (or setting BACT or other PSD requirements on condensable emissions) would be arbitrary and capricious if compliance with the applicable requirement cannot be reliably determined.

Another notable example, highlighted in the ANPR, is the lack of the necessary analytic tools for assessing air quality impacts on both the PM_{10-2.5} and PM_{2.5} NAAQS. ExxonMobil agrees with EPA that the lack of such analytic tools presents significant challenges to the effective administration of the PSD program. Furthermore, we agree with EPA’s assessment in the ANPR that special transition strategies will be necessary to address “technical difficulties” in modeling air quality impacts for PM_{10-2.5} and PM_{2.5} during “a temporary, interim period.”⁶³ The

⁶² 71 Fed. Reg. at 6728.

⁶³ 71 Fed. Reg. at 6728.

purpose of the interim strategies should be, as stated in the ANPR, “to address these technical difficulties with implementing the PSD program,” while “prevent[ing] significant deterioration of air quality from new and modified sources” of PM_{10-2.5} and PM_{2.5}.⁶⁴ ExxonMobil urges the development of clear and effective transitional strategies to be applied in lieu of the applicable PSD requirement. ***In fact, we submit that the adoption of such strategies is of critical importance and essential to the continued functioning of the PSD program without major disruptions.***

Of the approaches outlined in the ANPR, Option 3 in using BACT as surrogate for NAAQS compliance avoids the adverse impacts to the greatest extent possible and thus is the most preferable of the proposed transitional strategies. EPA provides the following description of this option in the ANPR:

Another approach might be to use compliance with BACT for PM_{10-2.5} as a surrogate for PM_{10-2.5} NAAQS compliance demonstration. In this approach, we might make a determination for an interim period that the first major sources that trigger PSD requirements for PM_{10-2.5} are not likely to cause or contribute to noncompliance with the PM_{10-2.5} NAAQS if they meet the BACT for PM_{10-2.5}. Thus, we might consider compliance with BACT to represent a surrogate for the PM_{10-2.5} NAAQS compliance demonstration for a limited period of until we have tools in place to assess PM_{10-2.5} standard.⁶⁵

ExxonMobil believes that this approach provides a straightforward and effective way to implement the PSD program during this interim transition period. Although the ANPR proposes Option 3 only for the new PM_{10-2.5} NAAQS, ExxonMobil believes this approach should be extended to apply also to the revised PM_{2.5} NAAQS given that, as noted in the ANPR, the ***same*** technical difficulties for justifying the interim relief of Option 3 apply to ***both*** criteria pollutants.

One important justification for this approach is that air quality protections of the PSD program will not be compromised during the transition period. The installation of BACT on the source alone should ensure the potential air quality impacts will be minimal. Also, the potential air quality impacts of the source should be evaluated in light of the considerable emissions

⁶⁴ 71 Fed. Reg. at 6727-28.

⁶⁵ 71 Fed. Reg. at 6728.

reductions that are expected to be achieved from various federal emissions control programs over the next decade or so. Once these reductions are factored into the source impacts assessment, a significant net air quality improvement is most likely to accrue in order to ensure not only compliance with the both the PM_{10-2.5} and PM_{2.5} NAAQS, but also the PSD goals for the prevention of significant deterioration of air quality throughout the attainment area.

Recent EPA reports illustrate the substantial progress that already has been made in reducing ambient concentrations of PM₁₀ and PM_{2.5} within the last 20 years.⁶⁶ Since 1988, for example, a combination of federal, regional and state regulatory programs has reduced PM₁₀ ambient concentrations by 31 percent nationally.⁶⁷ Significant improvements also have achieved for PM_{2.5} ambient concentrations. From 1999 to 2003, for example, PM_{2.5} ambient levels have declined by 10 percent nationally.⁶⁸ This national trend in PM air quality improvements is expected to continue for the foreseeable future due to the continued PM reductions from national and regional programs that will be implemented over the next 10 to 20 years. These programs include CAIR as well as new national mobile source regulations affecting heavy-duty diesel engines, highway vehicles and other mobile sources, just to name a few. EPA projects that these programs, in combination will achieve the following annual reductions of direct PM_{2.5} and precursor air pollutants from 2001 levels by 2015:

- 6 million tons of SO₂
- 9 million tons of NO_x
- 3 million tons of VOCs
- 200,000 tons of direct PM_{2.5}⁶⁹

The substantial reductions from these control programs provide additional assurance of the continued air quality improvements nationally, both in attainment and nonattainment areas for the two new NAAQS.

⁶⁶ See e.g., EPA Particle Pollution Report; 71 Fed. Reg. 2620, 2624-25 (January 17, 2006).

⁶⁷ See e.g., U.S. Environmental Protection Agency, The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003 (2004) (EPA Particle Pollution Report); National Ambient Air Quality Standards for Particulate Matter; Proposed Rule 71 Fed. Reg. 2620, 2624-25 (January 17, 2006).

⁶⁸ See e.g., U.S. Environmental Protection Agency, The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003 (2004) (EPA Particle Pollution Report); National Ambient Air Quality Standards for Particulate Matter; Proposed Rule 71 Fed. Reg. 2620, 2624-25 (January 17, 2006).

⁶⁹ See 71 Fed. Reg. at 2624-25.

Another important advantage of using BACT as a surrogate is that it avoids the complexities of the other options. This is clearly illustrated in the case of Option 1 that EPA proposed for both PM_{10-2.5} and PM_{2.5}. Under this approach, EPA is proposing to use “an analysis of PM₁₀ as a surrogate for the air quality analysis” under the PSD program for either PM_{10-2.5} or PM_{2.5}, as the case may be. However, the results of this analysis could only be used as a “screening mechanism” since it would “overpredict” actual PM_{10-2.5} or PM_{2.5} levels and thus could not be used for demonstrating compliance with the applicable PM NAAQS. EPA fails to explain in the ANPR how sources could resolve theoretical violations of the NAAQS given the current unavailability of the air quality modeling tools for assessing source impacts on the PM_{10-2.5} or PM_{2.5} NAAQS. Such uncertainties will only add to the exiting complexity of the PSD program and could create significant barriers to the permitting of new or modified sources.

IV. EPA Must Develop Accurate and Reliable Methods for Measuring Condensable PM_{2.5} and Organic and Elemental Carbon Before the CERR Inventory Can be Used as the Foundation for the Inventories Required from PM_{2.5} Nonattainment Areas under the CAA.

EPA requests comments on the use of the emissions inventory that states must develop under the Consolidated Emissions Reporting Requirements (CERR) in 40 C.F.R. Part 51 for the emission inventory required under CAA section 172(c)(3).⁷⁰ While using the emissions inventories gathered under CERR as the basis for the SIP emissions inventory required under CAA section 172(c)(3) makes sense from a practical standpoint, we have serious doubts regarding the quality and accuracy of the emissions data that are being gathered by states to comply with the CERR requirements.

Section 172(c)(3) requires each state nonattainment plan to “include a comprehensive, accurate, current inventory of actual emissions from all sources of the relevant pollutant or pollutant in such [nonattainment] area.”⁷¹ The CERR emissions data, however, exhibits significant deficiencies and cannot, at this point in time, meet the statutory criteria specified in section 172(c)(3). One significant example as to why the CERR data is inaccurate is that current test methods available for measuring condensable PM_{2.5} emissions do not provide an accurate

⁷⁰ 71 Fed. Reg. at 6728-29.

⁷¹ 42 U.S.C. § 7502(c)(3).

measurement of the PM_{2.5} portion of the filterable PM emissions. This overestimates the level of PM_{2.5} emissions, which undermines the overall accuracy of the CERR inventory.

To effectively regulate and control condensables as a component of PM_{2.5}, areas must have an accurate emission inventory of condensable emissions. This is critical for development of local control strategies and for attainment demonstrations. Such an inventory would not only identify the sources of condensable emissions, but also their relative magnitude compared to other fine particulate matter emissions and, therefore, contribution to a local nonattainment problem. An accurate emissions inventory is also necessary to conduct local photochemical modeling to judge whether a condensable emissions control strategy is reasonable, cost-effective, and leads to reductions in ambient levels of PM_{2.5}.

An accurate inventory of an area's condensable emissions is the foundation on which states develop plans and assure attainment. The baseline year emissions inventory is a key benchmark used by states and EPA in measuring reasonable further progress. Without an accurate condensable inventory in the baseline year and therefore in local photochemical models, reasonable further progress cannot be adequately measured. It would also make it difficult for EPA to review and approve an RFP plan submitted with a SIP and for states to determine if they have complied with the requirements.

As a critical first step to ensure that a "comprehensive, accurate, current inventory" is developed, the Agency must have a reliable and accurate test method with which to measure condensable emissions. Without this, states cannot develop accurate baseline emission inventories nor can they accurately assess the relative contribution of condensables to nonattainment problems. At this time, however, there is no commercially practicable and acceptably accurate way to measure the condensable component of PM_{2.5} emissions. As we recommended in our comments on the implementation rule for the current PM_{2.5} standard, EPA must devote the resources needed to finalize development and commercialization of better test methods for condensables and allow states the time to develop emission inventories so that they can be factored into nonattainment SIPs.

The test methods that are currently available (*e.g.*, Method 202, 201A) do not accurately measure condensable PM_{2.5} emissions. Among other issues, there is considerable potential for “double counting” of materials being measured as condensables in the “back-half” of Method 202. Specifically, as EPA notes in the preamble to the implementation rule for the 1997 PM_{2.5} standard, the combination of Test Method 202 and EPA Method CTM 40 (this combination method is known as 201A) may result in the counting of condensables that form in water but not in air. EPA explicitly acknowledges this concern when it describes a replacement methodology now under development by EPA:

The use of dilution-based particulate matter sampling offers several advantages over the combination of EPA Method CTM 40 and Method 202. One advantage is that the vapors are condensed and chemical reactions occur in a manner similar to when stack gas is released to the atmosphere. As a result, the potential for particulate matter formation that may occur in water but would not occur in air is eliminated.⁷²

While the dilution-based method referred to above (also known as CTM 39) promises far greater accuracy and reliability, it is not in wide use or approved by EPA at this time. EPA recognizes that further development is necessary and that this method will eventually be provided as the basis for an Appendix M method to be proposed at a later date.⁷³ Considerable additional research and development must occur to make this new method ready for regulatory use and can be used routinely and accurately across a wide range of industrial applications to assess the condensable portion of PM_{2.5}.⁷⁴

EPA also requests input on whether the list of reportable compounds should be expanded to include elemental and organic carbon.⁷⁵ Similar to our points discussed above with regard to condensable emissions, EPA must first develop accurate test methods for measuring elemental and organic carbon before such requirements can be established. New techniques for measuring

⁷² 70 Fed. Reg. at 66,051.

⁷³ *Id.* at 66,052.

⁷⁴ In terms of accuracy, we understand that dilution test methods also create difficulties when applied in low flow situations, which could lead to overestimation of emissions by a significant amount.

⁷⁵ 71 Fed. Reg. at 6729.

elemental and organic carbon are just starting to be developed to collect the level of detailed data that EPA suggests. EPA should postpone any requirement to measure PM at such detail until there is a reliable and accurate method for doing so.

The ANPR also raises the issue of whether additional data or temporal allocation techniques should be required to reflect daily emissions and their variability.⁷⁶ Industrial sources accounting for the majority of PM_{2.5} levels experience some variability in emissions over a 24-hour period but the overall emissions do not change much from day to day. Averages, therefore, are representative of the ambient levels of PM_{2.5} on any given day and it is not apparent that daily data are necessary.

It also is important to point out that few sources are collecting data on daily emissions. A new requirement to collect daily data, therefore, would require considerable effort from sources on top of the data collection efforts already being undertaken for other programs. Furthermore, it is not clear whether the collection of daily emissions data is technologically feasible for all sources. For these reasons, ExxonMobil believes that imposing a requirement to collect daily emissions data is of little use until the CERR inventory is upgraded to meet the statutory criteria in section 172(c)(3).

⁷⁶ *Id.*